

Industry Horizons: Information Technology and Applications Office

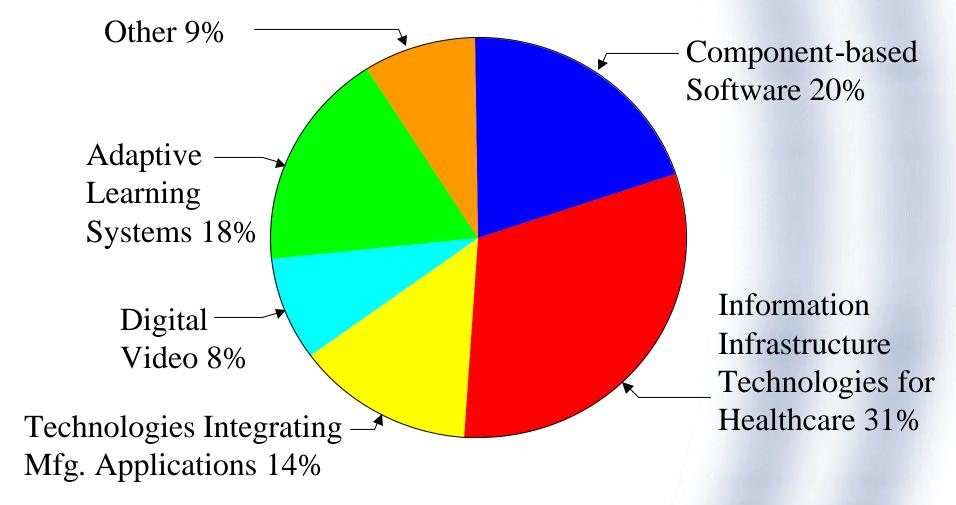
Harris Liebergot 301-975-5196 harris.liebergot@nist.gov





ITAO Background

Proposals Received 1997 through 1999







Current Portfolio of Technology Areas

Component-Based Software

- Reusable Software
- Specialized Components
- Automated System Assembly

• Adaptive Learning Systems

- Knowledge-bases
- Delivery Mechanisms
- Multi-sensory Interfaces
- Technologies Integrating Manufacturing Applications
 - Real-time Mfg Data Sharing
 - Manufacturing Execution Systems
 - Supply-chain Integration

Motor Vehicle Mfg and Other

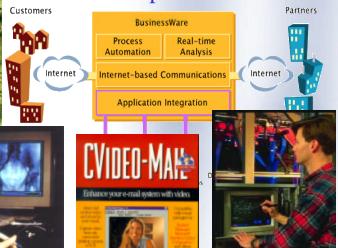
- Material Forming & Removal Processes
- Assembly Processes
- Tolerancing and Metrology

IT for Health Care

- Virtual Medical Training
- Healthcare Informatics
- Knowledge Services

Digital Video

- Video and Multimedia
- Protocols & Interoperability
- Data Compression







Component-based Software:

"Component-based Commerce:

The Interoperable Future"

Core Innovation:

Infrastructure to incorporate Webbased information and resources into new e-commerce applications.

Results:

Technology enabled the creation of a new public company that vaulted to the top of the e-commerce marketplace. Employee growth from 10 to 300 people.

Joint Venture: CommerceNet Consortium.

Cadabra, Inc., and BusinessBots Inc.

Project duration: 10/1/1997 - 12/31/1999

Total Funding: \$10,155,543

ATP funds: \$4,800,000







Motor Vehicle Mfg. Tech

"2mm Auto Body Project"

Core Innovation:

System and metrology tools to control the variation in automobile body components

Results:

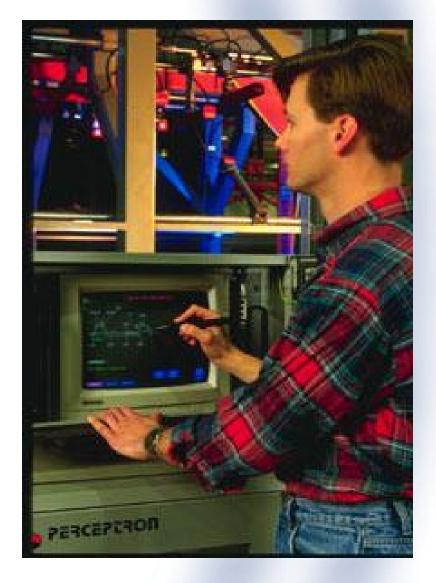
Increased customer satisfaction, savings up to \$650 Million per year, indirect benefits of at least \$3 Billion

Joint Venture: GM, Chrysler, Perceptron, ISI Robotics, Weber Technologies, Others

Project duration: 9/1/1992 - 10/31/1995

Total Funding: \$13,867,873

ATP funds: \$4,860,498







IT for Healthcare "PreOp: The Pre-Operative **Decision Support System"**

Core Innovation:

Patient-specific, environment for planning, rehearsal, and training of medical procedures

Results:

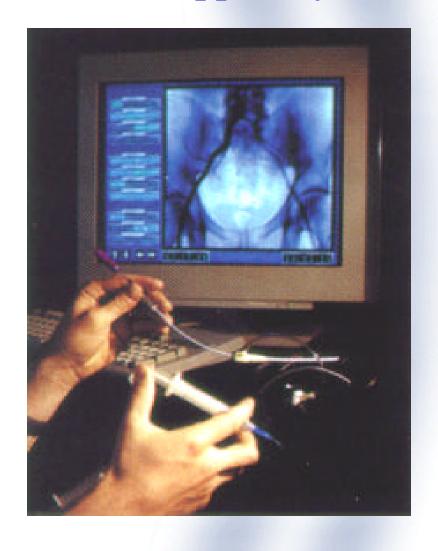
Increased quality and reduced costs for medical decisions & training. Software innovation of the year. One of the 500 fastest growing technology companies

Single Company: HT Medical Systems, Inc.

Project duration: 10/1/1997 - 9/30/1999

Total Funding: \$3,632,446

ATP funds: \$1.999,595









"Model-driven Application & Integration Components for MES"

Core Innovation:

First company proposing
Manufacturing Execution System
architecture using a small set of
software "engines" to provide general
solutions for manufacturing tasks

Results:

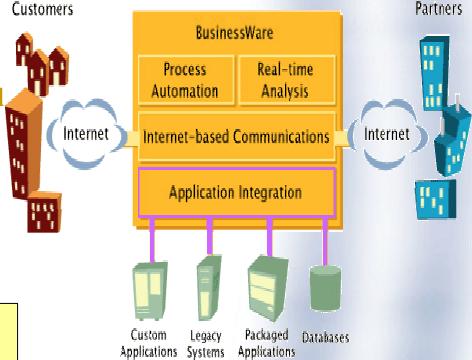
IPO announced in September, Silicon Valley's 7th fastest growing firm in 1999, over 300 new jobs created.

Single Company: Vitria Technology, Inc.

Project duration: 1/26/1996 - 1/25/1998

Total Funding: \$2,392,000

ATP funds: \$2,000,000







Digital Video Applications:

Adaptive Video Codec for Information Network.

Core Innovation:

New video compression technology enables video messaging clearly and efficiently.

Results:

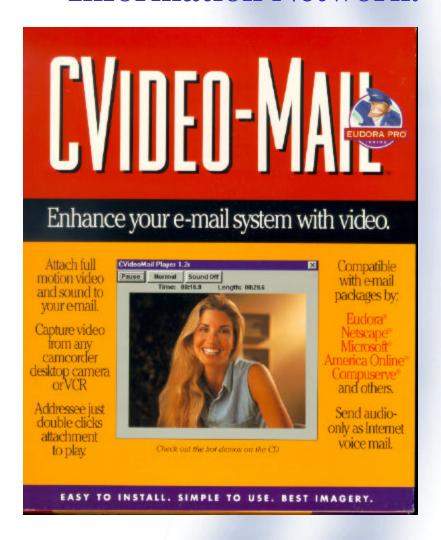
Reduced cost of video distribution and created new opportunities for email digital video messaging. Breakthrough applications in security industry.

Single Company: Cubic Videocomm, Inc

Project duration: 9/25/1995 - 3/31/1998

Total Funding: \$2,974,548

ATP funds: \$1,739,092







ITAO Challenges

- Reaching potential proposers without the advantage of <u>Focus Programs</u>.
- Targeting industry technology sectors given the <u>pervasiveness of IT</u>.
- Limited <u>ATP resources</u> for industry outreach.
- <u>ATP Funding Role</u> relative to private sector IT investment.
- Narrow gap between software research and software product development.





ITAO Emerging and Future Technology Areas

Systems and Applications



- Intelligent Manufacturing
- IT for Environment
- Intelligent Home
- IT for Transportation
- IT for Construction
- IT for Civil & Urban Planning
- Biometrics and Physical Security
- Bioinformatics



- Electronic Commerce
- Healthcare Information Systems
- Dependable Systems
- Human Computer Interface
- Virtual Reality On the Internet







Outreach Activities FY 2000

- Promotional Materials and Publications
- Direct Mailings to Industry Trade Association Members
- Email Broadcasts to industry organizations and associates
- Announcements in Newsletters of Chambers of Commerce
- <u>Links to ATP Web Site</u> Associations, Chambers of Commerce, Business Assistance Organizations, MEP Centers and Other Agencies
- ATP Display Booth at Industry Conferences and Trade Shows
- **Speaking Engagements** at Industry Workshops
- Referrals Through NIST MEP, Baldrige, and Other Agencies

